

# ACTIVITIES

**Florissant Fossil Beds National Monument’s Visitor Center is open 7 days a week.**

After Memorial Day through Labor day, Hours are 8:00AM to 7:00PM.  
Remainder of the year, 8:00AM to 4:30PM

**20 Minute Orientation Talks and 1 hour Petrified Forest Walks with a Ranger are offered daily throughout the summer.**

**Wildflower walks are led by a ranger every Friday at 10:30AM through 12:00PM. Meet at the visitor center.**

**The Hornbek Homestead is open weekdays from 1:00PM-4:00PM and weekends from 11:00AM-5:00PM. The buildings are closed all other times, but you may tour the grounds using the site booklet.**

**Junior Ranger Programs** - Kids 5-12 can earn their Junior Ranger badge or patch by participating in our activities:

Saturday and Sunday starting at 1:00PM; a ranger will lead activities for the Junior Rangers. Bring your children to the Monument this summer to enjoy summer activities with a Ranger. These fun hands-on learning activities may include games, hikes and/or field studies. Your children will learn about Paleontology, the Montane Ecosystem, and Resource Management.

At other times obtain the Junior Ranger Activity Guide from the visitor center, complete the activities, and receive a Junior Ranger badge or patch.

**Self-guided Tours**

Trail Guides can be found at the trail heads of both the Petrified Forest Loop and the Walk Through Time.

Booklets can be found at the entrance gate to the Hornbek Homestead.

## Hornbek Homestead Days



**July 26<sup>th</sup> and 27<sup>th</sup>, 10:00AM - 3:00PM**



Florissant Fossil Beds National Monument continues with the summer tradition of Hornbek Homestead Days, held in conjunction with Florissant Heritage Days. You can tour the historic homestead and see demonstrations of pioneer crafts such as: weaving, spinning, quilting, cooking and basket making. Children can play games from the 1800s, and enjoy lemonade and cookies.



## Mini Field Seminars



Mini Field Seminars are a series of programs given throughout the summer on a variety of topics. They may be presented during the day or in the evening, and may last for up to 4 hours. The cost of these programs are included with your entrance fee.

Some of these seminars have limits on attendance. Please contact the visitor center for more information and to make reservations. Phone (719)748-3253.

June 8:	Jeff Wolin, Basic map and compass
June 15:	High Country Wildlife, <b>Birds of Prey</b> Junior ranger
June 22:	TBA
June 29:	TBA
July 6:	Harv, Hike with a ranger
July 13:	Joe Lafleur, Birdwatching
July 20:	Terri Collins, Wildlife Rescue, Humans and Wildlife
July 27:	TBA
Aug 3:	Shawn, Eating the Meadow
Aug 10:	Jeff Wolin, Tracking
Aug 17:	Dinosaur Depot-What is a Fossil? Junior ranger
Aug 24:	TBA
Aug 31:	TBA
Sept 21:	Wapiti Watch
Sept 27:	Wapiti Watch
Sept 28:	Wapiti Watch
Oct 4:	Wapiti Watch
Oct 5:	Wapiti Watch

To be announced: Bat programs with the bat biologists  
Astronomy for kids  
Other programs for fun and interest

# SEMINARS 2003

The seminar series at Florissant provides the opportunity for field-based experiential learning in the natural university that the Monument and Pikes Peak region offers. A new slate of classes this year expands exploration of the natural and cultural resource themes emphasized in the past, with instructors who are recognized experts in their fields. Small classes ensure accessibility and interaction. The Friends of the Fossil Beds sponsor the series; all proceeds assist the National Park Service to protect the world-class fossils and educate the public about their significance. Browse the catalog and join us in one or many classes for a fun-filled learning adventure!

## GRADUATE CREDITS

Our association with Adams State College, Division of Extended Studies in Alamosa Colorado, is entering the third year. Through this program we offer graduate credit for teachers attending our seminar series. Courses in earth sciences, biology, history and humanities allow teachers to earn ½ credit per 7.5 hour class. The tuition cost of each ASC class is \$20.00. BOCES recertification is now offered through Pikes Peak chapter for a cost of \$5.00 per ½ credit.

## REGISTERING FOR THE SEMINARS

Seminars fill up quickly, so register early. Regular fees for each seminar are \$35.00. Current members of Friends pay \$25.00; current teacher members pay \$20.00 if taking for grad credit. Contact the Monument for a brochure, Adams State forms and registration information.

(719) 748-3253  
FLFO\_Information@nps.gov  
Florissant Fossil Beds National Monument, P.O. Box 185, Florissant, CO 80816.  
www.nps.gov/flfo -- press “in-depth” -- press “seminars”

### PALEONTOLOGY AND GEOLOGIC HISTORY OF FLORISSANT

**(½ credit) June 7<sup>th</sup>, 9 am to 5 pm, Herb Meyer, PhD -**  
Both basic and advanced topics will be discussed. The seminar is most suitable for science teachers or people with an interest in geology. We will investigate the geologic events that shaped the formation of the fossil-rich Florissant Formation. Basic concepts of geology relating to Florissant are examined, including rock types, volcanoes, dating, and plate tectonics. The geologic processes responsible for the formation of the fossil beds will be examined in detail, including an overview of regional geologic history through the past 1.4 billion years, types of fossilization, the relation of the fossil beds to the Guffey volcanic center, and sedimentation patterns in the ancient lake. The paleontology of the fossil beds will be discussed, including the types of plants and insects that were present, the use of fossils in reconstructing climate and elevation, and the preservation of fossils in collections. A 2-hour field trip will examine geologic outcrops and features as a means of reinforcing these concepts.

**THE FUNDAMENTALS OF ASTRONOMY: A COSMIC JOURNEY THROUGH SPACE AND TIME (½ credit) June 21<sup>st</sup>, 2 pm to 10 pm (Please note the later time for night skies viewing), William A. Dexter, PhD –** There are no mathematical requirements for taking this class. We will trace the evolution of the universe from the Big Bang to the present. The class will examine the nature of stars, galaxies, quasars, black holes and even other planetary systems! Discover how we know what we know about these objects; there will be discussions about distance techniques, electromagnetic radiation, and various methods for observing and measuring stellar positions, as well as the use of a telescope. We will also view many deep space photographs of galaxies, clusters and nebulae. If the sky is clear that night, we will see stars first-hand.

**BASIC MAMMAL TRACKING: INTRODUCTION TO THE SCIENCE OF WILDLIFE TRACKING (½ credit), June 28<sup>th</sup>, 9 am to 5 pm, Lee Thormahlen, Naturalist –** Lee Thormahlen will provide an overview of the remarkable science and world of wildlife tracking. The morning portion of the class will be instruction with a PowerPoint presentation. The afternoon is a field trip in the surrounding area of the Fossil Beds National Monument applying and practicing techniques learned: The evolution of the foot, gaits and track patterns, measurements, clue identification, techniques, fieldwork, introduction to snow tracking and other aspects of the subject. Learning to respect the rights of wildlife will also be addressed. Here’s an opportunity to learn skills necessary to interpret signs left behind by wild animals.

**BIRDS OF FLORISSANT FOSSIL BEDS NATIONAL MONUMENT: IDENTIFICATION AND HABITATS (½ credit), June 29<sup>th</sup> (Sunday), 7 am to 3 pm, Richard Beidleman, PhD and Linda Beidleman, MA** (Note early starting time: The class begins promptly at 7 am to be in the field when birds are most active. Please arrange to arrive at least a few minutes early) – Birding is the fastest-growing natural history pursuit in the world, and this seminar will be useful to every level of interest. Participants will gain experience in spotting and identifying birds using binoculars, telescopes, field books and instructor suggestions. The basics of bird identification include features common to all birds, noting characteristics such as family groups whose shapes provide clues to specific species. Markings, colors, behavior, song and habitat give additional clues for recognition. Bring binoculars if you have them, a field notebook and pencil. You will receive a list of recommended field guides prior to the class.

**GEOLOGIC WONDERS OF SOUTH PARK: THE FIELD TRIP (½ credit), July 5<sup>th</sup>, 9 am to 5 pm, Donald McGookey, PhD –** Assuming that participants are non-geologists, this field trip provides an on-the-scene introduction to the geology of the eastern portion of South Park. The day will begin at the Fowler Education Center at the monument. Participants will proceed (by van or car-pool) to the new Wilkerson Pass Visitor Center overlooking South Park for a literal overview of many of the dramatic features of this fascinating geologic, paleontologic, and historic Colorado locale. The group will see extrusive rocks from what was once the massive Guffey Volcano; mudflows with spectacular volcanic bombs, welded ash flows and lava flows. The class will traverse a variety of geology throughout the day in the area of Hartsel and along Elkhorn Road, marine and non-marine strata, the leading edge of the Elkhorn Thrust; Precambrian metamorphic and igneous rocks, Oligocene lakebeds with insect fossils, coal beds and volcanic strata. Some roads are unpaved, but all are easily driven by automobile. Don’t be daunted by the geologic words; a glossary explaining in simple language the terms used will be sent prior to the class. If you’ve always wanted to learn about geology from the rocks themselves, this field trip will do it!

**LITHICS: UNDERSTANDING FLINTKNAPPING AND INDIAN USES OF STONE TOOLS (½ credit), July 12<sup>th</sup>, 9 am to 5 pm, Bob Patten, BS –** The sensitive balance between environment, game and people steered early lithic (stone) technology. Follow the life cycle of a rock from quarry, through the camp, and back to the ground. Demonstrations will show how flintknapping processes created predictable and uniform tools, use of the at-at or spear thrower that extended range and power of hunting weapons dramatically, and other original tools and processes. The class will offer hands-on experience that can create appreciation of the role stone tools played in day-to-day activity both for early man and historic peoples. Patten observes that deep insight and understanding occurs for many people from reflections of ancient tools and projectile points.

Patten participated in NOVA’s “The Search for the First Americans”, including his replicating a Clovis point. Join this author and master flintknapper for an inspiring learning experience.

**READING AND WRITING THE WESTERN LANDSCAPE (½ credit), July 19<sup>th</sup>, 9 am to 5 pm, Susan J. Tweit, BS –** The landscapes of the western United States are uniquely legible, like a book laid open for all to read. The details of these landscapes reveal the poetry and power inherent in them. Their stories have much to tell us about what life really means. Learning how to read these landscapes and how to write their stories passionately and precisely can give us insight into our own species, helping us understand what it is to be human. In this seminar, we’ll observe, take field notes, use field guides and other references to understand our observations and uncover stories through creative writing exercises. Participants will need a notebook or sketchbook suitable for field notes, and for writing. Susan Tweit is a former field ecologist and is currently a writer whose work has earned numerous national and regional awards.

**HISTORY OF DISCOVERY AND SCIENTIFIC RESEARCH AT THE MONUMENT (½ credit), July 26<sup>th</sup>, 9 am to 5 pm, Steven Veatch, MS -** Join local geologist Steven Veatch and learn the amazing stories of early exploration and scientific discovery in the monument. This window to the past will center on the lives and contributions of people whose work has increased our understanding of the Eocene ecosystem represented in the Florissant fossil record. An introductory discussion illustrated with rare historical photographs and slides will precede visits to actual historical paleontological sites in the park. Included will be fascinating new information about the Princeton Scientific Expedition of 1877 (a group of remarkable young men whose individual journals allow us to see through their eyes); Mrs. Charlotte Hill (The significance of whose role no one suspected), and others. Much of it resulting from original research done by Veatch. Both famous and little-known scientists, the historical and cultural components of their places within the scientific record of the monument will be covered. Experience first-hand where history was made.

**PRIMITIVE SKILLS: UTE BASKETRY AND OTHER ARTS OF SURVIVAL (½ credit), August 2<sup>nd</sup>, 9 am to 5 pm, Robin Blankenship –** Ute Indians and other nomadic peoples used materials at hand to make utilitarian objects in addition to other survival skills such as hunting and gathering. Learn to identify plant resources for basketry, and techniques for whole shoot willow twining to make a variety of baskets. Various start and finish techniques will be taught. Other survival arts and skills will be discussed during the class.

**ROCKS & MINERALS (½ credit), August 9<sup>th</sup>, 9 am to 5 pm, Peter (Pete) J. Modreski, PhD –** How do you identify a rock? This class will answer this and many questions about the basics of rocks and minerals, keyed to the rocks found in the Florissant-Lake George area. Half the day will be spent examining samples of igneous, metamorphic, and sedimentary rocks and the minerals of which they’re composed. The other half on a short field trip to see and (if desired) collect some of these rocks in person at roadside sites and on one or more short hikes or walks. Participants will get to be on familiar terms with many types of rocks and their relatives, and learn how they fit into the big geologic picture of Colorado.

**THE HAYMAN FIRE AT MANITOU EXPERIMENTAL FOREST: Fire Behavior, Effects and Subsequent Research (½ credit), August 16<sup>th</sup>, 9 am to 5 pm, Wayne D. Shepperd, PhD -** On June 18<sup>th</sup>, 2002, the 135,000 acre Hayman Fire burned about 1000 acres of the 16,700 acre Manitou Experimental Forest a few miles north of Woodland Park, Colorado. Workshop participants will meet at the historic Manitou Experimental Headquarters Lodge to learn fundamentals of the ecology and fire history of the ponderosa pine forests in this area. We will visit an area where fire behavior was modified by management activities underway at the time of the fire; tour experimental sites where effects of fuel reduction techniques are being studied. In addition, the class will visit former regeneration study plots burned by the fire to observe effects of different fire intensities where pre-fire forest conditions are precisely known. Here’s a chance to hear what the real experts have learned about this devastating fire that occurred virtually in our own backyard. Participants aren’t required to have extensive scientific knowledge, only an interest in fire and ponderosa pine ecology. Bring a notebook. Those registered will be sent directions to the Manitou Experimental Headquarters lodge.

**LIMNOLOGY: WATER, STREAMS AND PONDS IN THE MONUMENT (½ credit), August 23<sup>rd</sup>, 9 am to 5 pm, Steven Veatch, MS –** Water is a complex, increasingly crucial and little-understood issue today in the west. To know the cycle of water is a beginning. Limnology is the science of inland waters including streams, lakes, ponds and wetlands. An introductory slide presentation will be followed by a field trip to several streams and ponds on the monument. Topics include groundwater, springs, aquifers, riparian zones, human impact on water, and conservation. Water properties, cycles and use, Colorado pollution problems will be examined. In the afternoon the group will visit Grape Creek near the Hornbek Homestead to carry out field observations and gain practical experience in limnological methods and practice selected stream and pond water quality measurements. Whether you’re interested in the scientific methods or just want to understand more about this precious and much-debated resource, you’ll never see water in quite the same way as before.